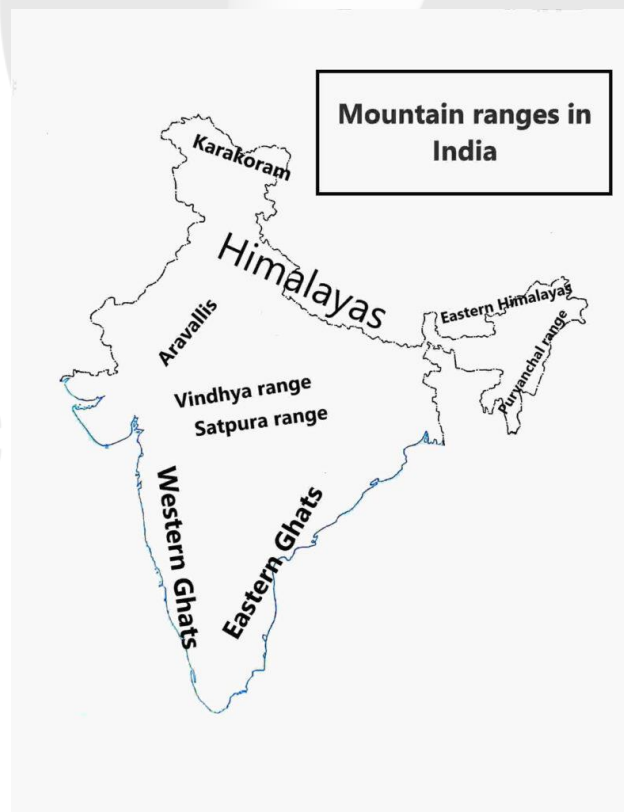
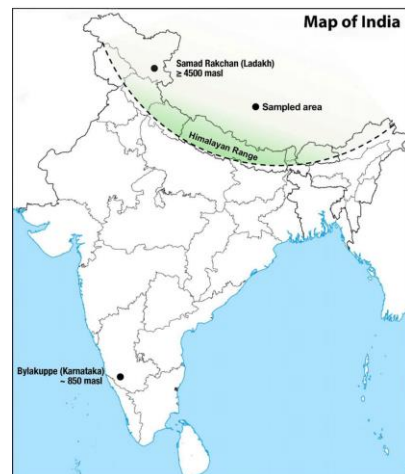


Mountain Ranges of India (Pt. 1)



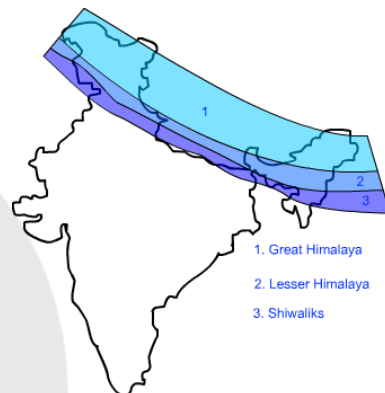
Himalayan Range

- youngest and highest mountain range in the world, the Himalayan range is the abode of mountains. The Himalayan ranges are spread across over 2500 km in length, stretching from Jammu and Kashmir in the North to the state of Arunachal Pradesh in the east.
- Includes the Himalayas, Purvanchal, and their extensions Arakan Yoma (Myanmar) and Andaman and Nicobar Islands (but we will consider these as islands only).



Division of the Himalayas

- Shiwaliks or outer Himalayas
- Lesser or Middle Himalayas
- The Greater Himalayas
- The Trans-Himalayas – Tibetan Himalayas.
- The Eastern Hills – Purvanchal: A chain of hills in North-East India.



The Trans Himalayas

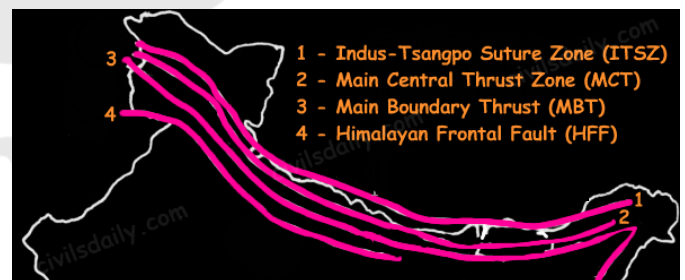
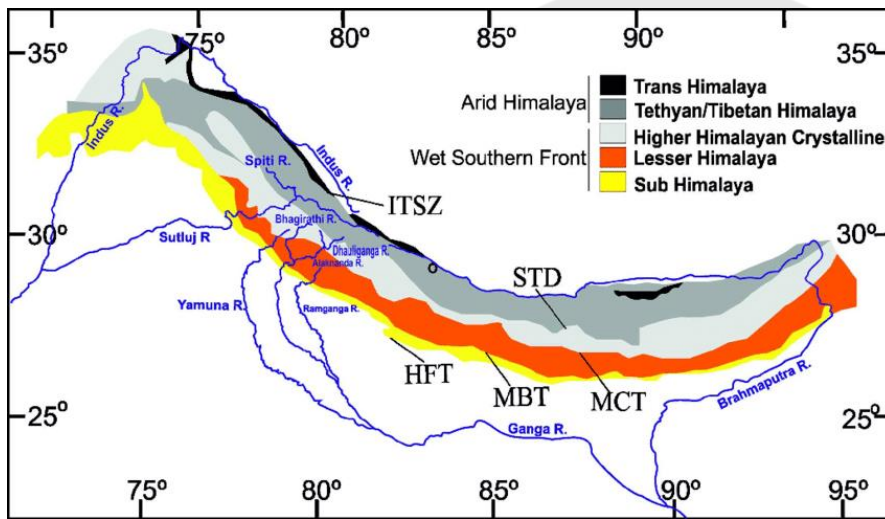
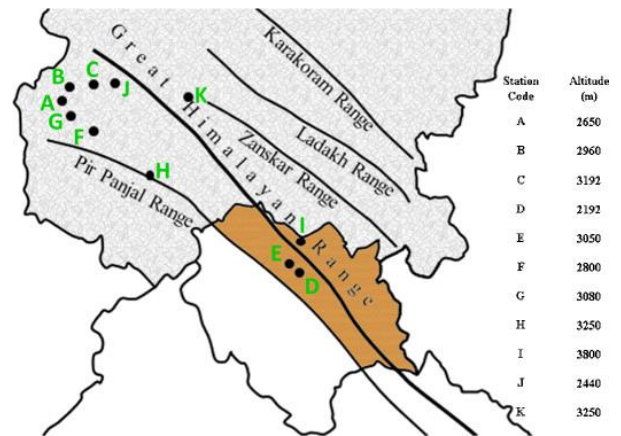
- The Himalayan ranges immediately north of the Great Himalayan range.
- Also called the Tibetan Himalaya because most of it lies in Tibet.
- The Zaskar, the Ladakh, the Kailas and the Karakoram are the main ranges.
- It stretches for a distance of about 1,000 km in the east-west direction.
- The average elevation is 3000 m above mean sea level.

Karakoram Range

- A sub range of the Hindu Kush Himalayan Range
- Famous Glaciers : Siachen Glacier
- Karakoram range span the borders between Pakistan, India and China
- Located in the regions of Gilgit –Baltistan (Pakistan), Ladakh (India), and Xinjiang region (China)
- The northernmost range of the Trans-Himalayan Ranges in India is the Great Karakoram Range also known as the Krishnagiri range.
- K2 (8,611 m)[Godwin Austen or Qogir] is the second highest peak in the world and the highest peak in the Indian Union.

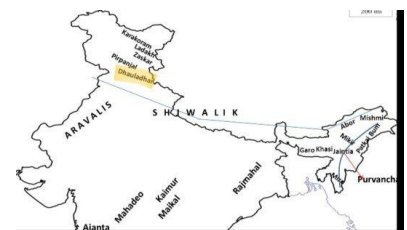
Ladakh Range

- From the mouth of the Shyok River in Ladakh to the border with Tibet
- Extension of the Ladakh Range into China is known as Kailash Range
- Lies here India's cold desert named as 'LEH'
- The Nanga Parbat (8126 m) is an important range which is in The Zaskar Range.
- The Kailas Range (Gangdise in Chinese) in western Tibet is an offshoot of the Ladakh Range. The highest peak is Mount Kailas (6714 m). River Indus originates from the northern slopes of the Kailas range.

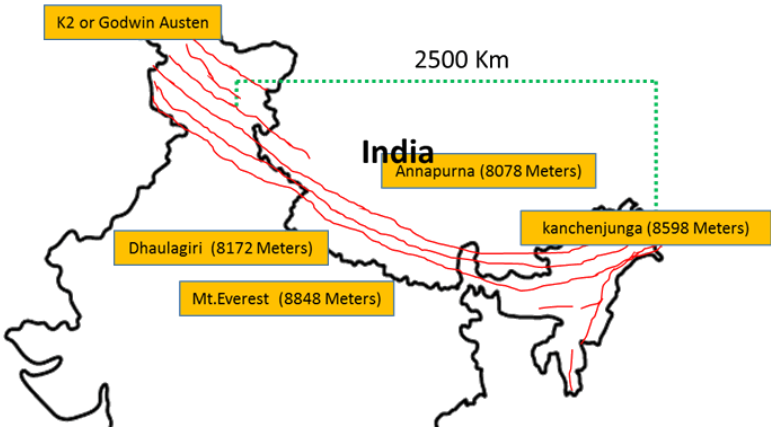


The Great Himalaya

- Also known as Inner Himalaya, Central Himalaya, or Himadri.
- The average elevation of 6,100 m above sea level and an average width of about 25 km.
- It is mainly formed of the central crystallines (granites and gneisses) overlain by metamorphosed sediments [limestone].
- Terminates abruptly at the syntaxial bends. One in the Nanga Parbat in the north-west and the other in the Namcha Barwa in the north-east.



Regional name of Mount Everest	Region
Sagarmatha (The Goddess of the Sky)	Nepal
Chomlungma (Mother of the World)	China (Tibet)



- **Kanchenjunga**
- Height - 8,586 m
- This is the third highest peak in the world.
- It is located in the Himalayan region of Sikkim, situated at the border of Nepal and India.
- It is often also regarded as the 'five treasures of snow'. The name represents the five distinct peaks of the entire group of mountains.
- **Nanda Devi**
- Height - 7,816 m
- It is located in the Indian Garhwal region of the Himalayas.
- It is the highest peak which is located all inside the boundaries of India.
- It is known to be the 23rd highest peak in the whole world.

Passes in the Greater Himalayas

State	Passes of Greater Himalayas
Jammu and Kashmir	Burzil Pass Zoji La [La means pass]
Himachal Pradesh	Bara Lacha La Shipki La
Uttarakhand	Thaga La Niti Pass Lipu Lekh
Sikkim	Nathu La Jelep La

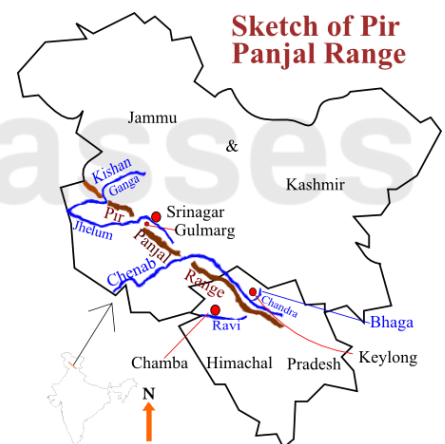
Middle or the Lesser Himalaya

- In between the Shiwaliks in the south and the Greater Himalayas in the north.
- Runs almost parallel to both ranges.
- It is also called the Himachal or Lower Himalaya.
- Lower Himalayan ranges are 60-80 km wide and about 2400 km in length.
- Elevations vary from 3,500 to 4,500 m above sea level.
- The Middle Himalayan ranges are more friendly to human contact.
- The majority of the Himalayan hill resorts like Shimla, Mussoorie, Ranikhet, Nainital, Almora, and Darjeeling, etc. are located here.

Important ranges of Lesser Himalayas	Region
The Pir Panjal Range	Jammu and Kashmir (They are to the south of Kashmir Valley)
The Dhaola Dhar Range	Himachal Pradesh
The Mussoorie Range and The Nag Tiba Range	Uttarakhand
Mahabharat Lekh	Nepal

The Pir Panjal range

- The Pir Panjal range in Kashmir is the longest and the most important range.
- It extends from the Jhelum river to the upper Beas river for over 300 km.
- Pir Panjal Pass (3,480 m), the Bidil (4,270 m), Golabghar Pass (3,812 m) and Banihal Pass (2,835 m).
- The Banihal Pass is used by the Jammu-Srinagar highway and Jammu-Baramulla railway.



Important Valleys

- Between the Pir Panjal and the Zaskar Range of the main Himalayas, lies the valley of Kashmir.
- In Himachal Pradesh, there is Kangra Valley. It is a strike valley and extends from the foot of the Dhaola Dhar Range to the south of Beas.
- On the other hand, the Kulu Valley in the upper course of the Ravi is a transverse valley.

Dhauladhar Range (White Range)

- Spread in J & K and Himachal, with home to major hill stations like Kullu, Manali & Shimla
- Highest peak : Hanuman ji Ka Tiba, or ‘White Mountain’

Shiwalik Range

- Also known as Outer Himalayas.
- Located in between the Great Plains and Lesser Himalayas.
- The altitude varies from 600 to 1500 meters.
- Runs for a distance of 2,400 km from the Potwar Plateau to the Brahmaputra valley.
- The southern slopes are steep while the northern slopes are gentle.
- The width of the Shiwaliks varies from 50 km in Himachal Pradesh to less than 15 km in Arunachal Pradesh.
- Southernmost & outer Himalayas also known as Manak Parbat in ancient times, literally means ‘tresses of Shiva’

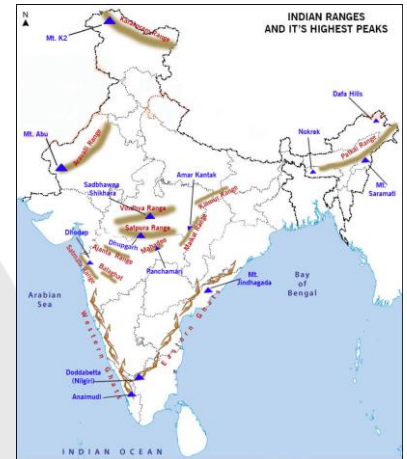
Region	Name of Shiwaliks
Jammu Region	Jammu Hills
Dafla, Miri, Abor and Mishmi Hills	Arunachal Pradesh
The Dhang Range, Dundwa Range	Uttarakhand
Churia Ghat Hills	Nepal

Formation of Duns

- Shiwalik Hills were formed by the accumulation of conglomerates (sand, stone, silt, gravel, debris, etc.).
- These conglomerates, in the initial stages of deposition, obstructed the courses of the rivers draining from the higher reaches of the Himalayas and formed temporary lakes.
- With the passage of time, these temporary lakes accumulated more and more conglomerates. The conglomerates were well settled at the bottom of the lakes.
- When the rivers were able to cut their courses through the lakes filled with conglomerate deposits, the lakes were drained away leaving behind plains called ‘duns’ or ‘doons’ in the west and ‘duars’ in the east.
- Dehra Dun in Uttarakhand is the best example.

Purvanchal or Eastern Hills

- At the Dihang gorge, the Himalayas take a sudden southward bend and form a series of comparatively low hills which are collectively called as the Purvanchal.
- Purvanchal hills are convex to the west.
- They run along the India-Myanmar Border extending from Arunachal Pradesh in the north to Mizoram in the south.
- Patkai Bum hills are made up of strong sandstone; elevation varying from 2,000 m to 3,000 m; merges into Naga Hills where Saramati (3,826 m) is the highest peak.
- Patkai Bum and Naga Hills form the watershed between India and Myanmar.
- Barail Range swings to the west into Jaintia, Khasi, and Garo hills which are an eastward continuation of the Indian peninsular block. They are separated from the main block by Ganga and Brahmaputra rivers.
- South of the Manipur Hills is the Mizo Hills (previously known as the Lushai hills) which have an elevation of less than 1,500 meters.



Longitudinal Division of the Himalayas

- The Kashmir /Punjab/ Himachal Himalayas
- The Kumaun Himalayas
- The Central/ Nepal Himalayas
- The Assam/ Eastern Himalayas

• The Kashmir/Punjab/Himachal Himalayas

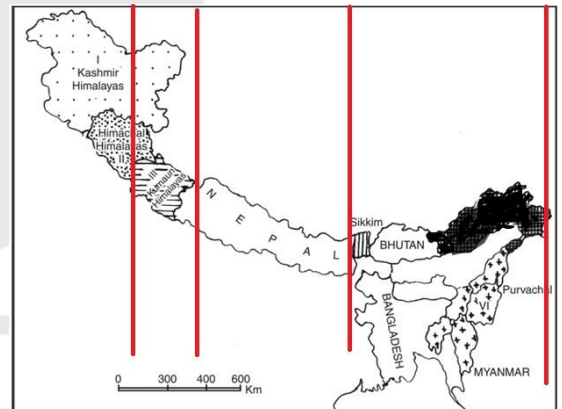
- Kashmir Himalayas lie between the Indus River and Sutlej. A basic piece of the Himalayas lies in Jammu and Kashmir and Himachal Pradesh. This is generally called Punjab Himalayas.

• The Kumaun Himalayas

- This division lies between the Satluj and Kali River. The most elevated top in this division is Nanda Devi. Significant tops in this area are Nanda Devi, Trisul, Kedarnath, Dunagiri, Kamet, Badrinath, Jaonli, Gangotri, and Bandarpunch. Pindari, Gangotri, and Milam are significant ice sheets in this division. The significant slope stations are Mussoorie, Nainital, Ranikhet, Almora, and Bageshwar. The significant passes are Thaga La, Muling La, Mana, Mangsha Dhura, and Lipu Lekh.

• The Central/Nepal Himalayas

- This division extends from the Kali River to the Tista River. A significant piece of it lies in Nepal aside from the outrageous eastern part-Sikkim Himalayas. The huge zeniths are the Mt. Everest, Kanchenjunga, Makalu, Dhaulagiri, Annapurna, Manaslu, and Gosainath. Nathu La and Jelep La are the critical passes in this district.



- **The Assam/Eastern Himalayas**
- This division lies among Tista and the Brahmaputra River (Dihang). It involves the territory of Arunachal Pradesh in India and Bhutan
- The Himalayas rise quickly in the fields of Assam and thin in the lower regions of Shiwaliks. It involves numerous slopes called Aka slopes, Dafla slopes, Miri slopes, Abor slopes, Mishmi slopes, and Namcha Barwa. The significant slopes of the eastern Himalayas are Pakai bum, Manipur slopes, Blue Mountain, Tripura reach, and Brail range. The critical passes in this area are Bomdi La, Yonggyap, Diphu, Pangsau, Tse La, Dihang, Debang, Tunga, and Bom La.

Mountain Ranges in North India – North to South

Mountain Ranges	States	Highest Peak
Karakoram	PoK, Ladakh	Godwin-Austen or K2 8,611 m
Ladakh Range	J&K	
Zaskar Range	J&K	Kamet Peak 7,756 m
Pir Panjal Range	J&K, Himachal Pradesh	Indrasan 6,221 m
Dhauladhar Range	J&K	
Kishtwar Himalaya	J&K	Bharanzar
Garhwal Himalaya	Uttarakhand	

West to East		
Garo Hills	Meghalaya	
Khasi Hills	Meghalaya	Shillong city situated on it
Jaintis Hills	Meghalaya	
Mikir Hills	Assam	
Rengma Hills	Assam	

North to South	
Patkai Bum	Arunachal Pradesh
Naga Hills	Nagaland
Barail Range	Assam Nagaland
Bhuban Hills	Assam Mizoram
Lushai Hills or Mizo Hills	Mizoram